Intermec 条码打印机免费服务热线：400-1199-021

Intermec

User’ s Guide

EasyCoder E4 Bar Code Label Printer

Informationinthismanualissubjecttochangewithoutpriornoticeanddoesnotrepr
esenta
commitmentonthepartofIntermecPrinterAB.

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EasyCoder,EasyLAN,Fingerprint,andLabelShopareregisteredtrademarksofInter
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giesCorp.ThewordIntermec,theIntermeclogo,InterDriver,PrintSet,andDurathe
rmare
trademarksofIntermecTechnologiesCorp.
CentronicsisaregisteredtrademarkofGenicomCorporation.
KimduraisaregisteredtrademarkofKimberlyClark.
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WindowsisatrademarkofMicrosoftCorporation.

Contents

Preface

1.Introduction

2.Installation

3.Operation

.....10
• Power.....10
• Computer.....10
Controls and Indicators.....11
• Power LED.....11
• Feed Button.....11

Media Load - Tear-Off (Straight-through).....12
Media Load - Peel-Off (Self-strip).....15

• • •

4. Printer Setup

Contents, cont.

5.Troubleshooting

6.Maintenance

Appendix 1

Appendix 2

Appendix 3

2

Intermec EasyCoder E4 – User's Guide

FCC Notice (United States of America)

WARNING

Thisequipmentgenerates, uses, andcanradiateradiofrequencyenergyandifnotinstalledand
usedinaccordancewiththeinstructionsmanual, maycauseinterferencetoradiocommunications.
IthasbeentestedandfoundtocomplywiththelimitsforaClassAcomputingdevicepursuant
toSubpartJofPart15ofFCCRules, whicharedesignedtoprovidereasonableprotectionagainst
suchinterferencewhenoperatedinacommercialenvironment. Operationofthisequipmentin
aresidentialareaislikelytocauseinterferenceinwhichcasetheuserathisownexpensewillbe
requiredtotakewhatevermeasuresmayberequiredtocorrecttheinterference.

DOC Notice (Canada)

Canadian Dept. of Communication
REGULATIONS COMPLIANCE (DOC-A)

ThisdigitalapparatusdoesnotexceedtheclassAlimitsforradionoiseemissionsfromadigital
apparatusassetoutintheradiointerferenceregulationsoftheCanadianDepartmentofCommu-
nication.

Ministère des Communications du Canada
CONFORMITE DE REGLEMENTS (DOC-A)

Leprésentappareilnumériquen ,
émetpasdebruitsradio-électriquesdépassantleslimitesapplicables
auxappareilsnumériquesdeclasseAprescritesdanslerèglementsurbrouillageradioélectriqueédicté
parleMinistèredesCommunicationsduCanada.

GS Notice (Germany)

ALLGEMEINE VORSCHRIFT

ReparaturenodersonstigeEingriffe, diesichnichtaufnormaleBedienungderMaschinebeziehen,
dürfenausschließlichnurvoneinemausgebildeten, zuständigenFachmannvorgenommenwerden.

EU Standard EN 55022 (The European Union)

WARNING

ThisisaClassAITEproduct.Inadomesticenvironmentthisproductmaycauseradiointerference
inwhichcasetheusermayberequiredtotakeadequatemeasures.

Intermec EasyCoder E4 – User’s Guide

Declaration of Conformity (CE)

We,

Intermec Printer AB
Idrottsvägen 10
Box 123
S-431 22 Mölndal
Sweden

declareunderoursoleresponsibility,thattheproduct

EasyCoder E4

towhichthisdeclarationrelatesisinconformitywiththefollowingstandards

Electrical Safety:
EN 60 950

EMC Emissions:
EN 50 081-1:1992
(EN 55 022:1994, class A
EN 61 000-3-2:1995, class A)

EMC Susceptibility:
EN 50 082:1992
(IEC 801-2:1984
IEC 801-3:1984,
IEC 801-4:1988)

followingtheprovisionsofDirectives

89/336/EECand 73/23/EEC

Mölndal1999-09-01

.....
.....

MatsGunnarsson
President

1

printerishandled,modified,orinstalledinothermannersthanthosedescribedin Intermec'smanuals.

Chapter 1

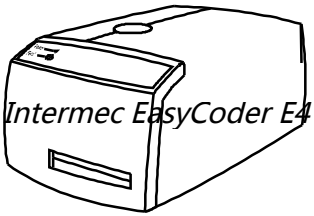
Introduction

EasyCoder E4

dots-per-inch)printhead.

TheEasyCoderE4isprovidedwithitsownversionoftheIntermecDirectProtocol(see*IntermecEasyCoderE4DirectProtocol, Programmer's ReferenceManual*).Itisalsosupportedbyaseriesa standardWindowsapplicationsoftwarepackagesfromIntermec:

- IntermecInterDriverwithActiveXcontrolsallowsprinting frommostprograms.
- IntermecLabelShopisalabel-formattingprogramavailablein anumberofversions.
- IntermecPrintSetisasoftwareforsettingupEasyCoderprint-



Safety

Intermecassumesnoresponsibilityregarding theCEDirectiveif theprinterishandled,modified,orinstalledinanywayother thanthatdescribedinIntermec's manuals.

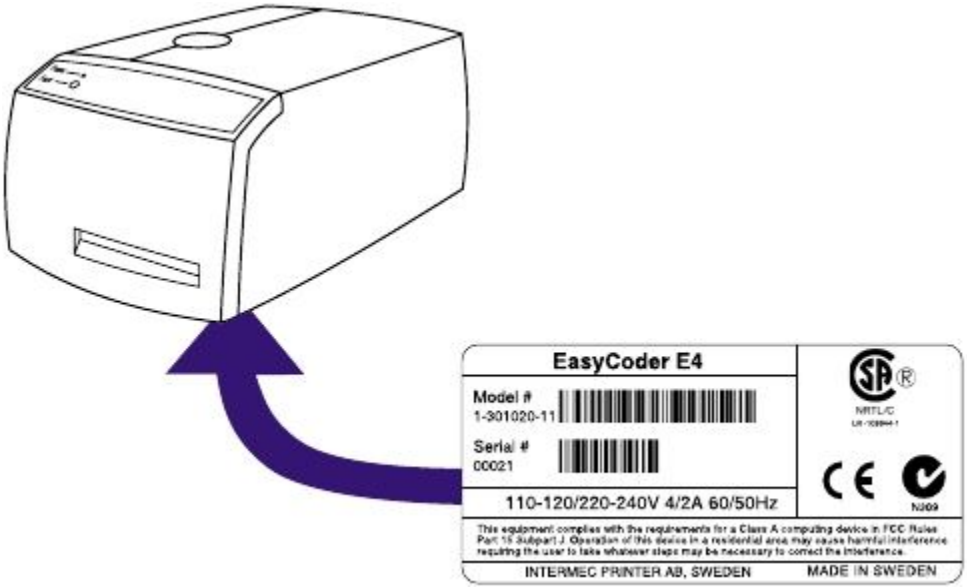
Caution

Readthismanualcarefullybeforeconnectingtheprinter.

- Movingpartsareexposedwhenthesidedoorisopen,so ensurethatthedoorisclosedbeforeyouoperatetheprinter.
- Donotputyourfingersinsidetheprintmechanismwhen thepowerison.
- Placetheprinteronanevensurfacewhichcansupportits weightofapproximately4.7kg(10.3pounds)plussupplies.
- Donotspraytheprinterwithwater.Ifyouareusingahose tocleanthepremisesinanindustrialenvironment,remove the printerorprotectitcarefullyfromsprayandmoisture.
- Carefullyreadthewarningtextontheenvelopebeforeusing acleaningcard.
- Donottransporttheprinterwihoutfirstremovinganysupplies.

Product Labeling

The machine label is attached to the bottom of the printer and contains information on type, model, and serial number as well as AC voltage. It also contains various signs of approval.

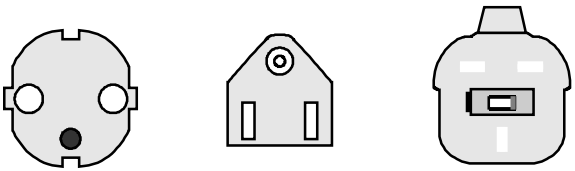

EasyCoder E4
Model #
1-901020-11
Serial #
00021
110-120/220-240V 4/2A 60/50Hz
This equipment complies with the requirements for a Class A computing device in FCC Rules Part 15 Subpart J. Operation of this device in a residential area may cause harmful interference requiring the user to take whatever steps may be necessary to correct the interference.
INTERMEC PRINTER AB, SWEDEN
MADE IN SWEDEN

Installation

Unpacking

European-type
230VACplug

Iftheprinterhasbeendamagedinanywayduringtransporta
-
tion,complaintothecarrierimmediately.
Ifthedeliveryisincorrectoranypartsaremissing,repor
tit
immediatelytothedistributor.



Main Parts – Standard Model

Transfer Ribbon

Supply Hub

with Edge Guide

Transfer Ribbon Rewind Hub

Label Taken Sensor

Cutter Interface

Bar Code Wand Interface (not used)

Thermal Printhead

Tear Bar

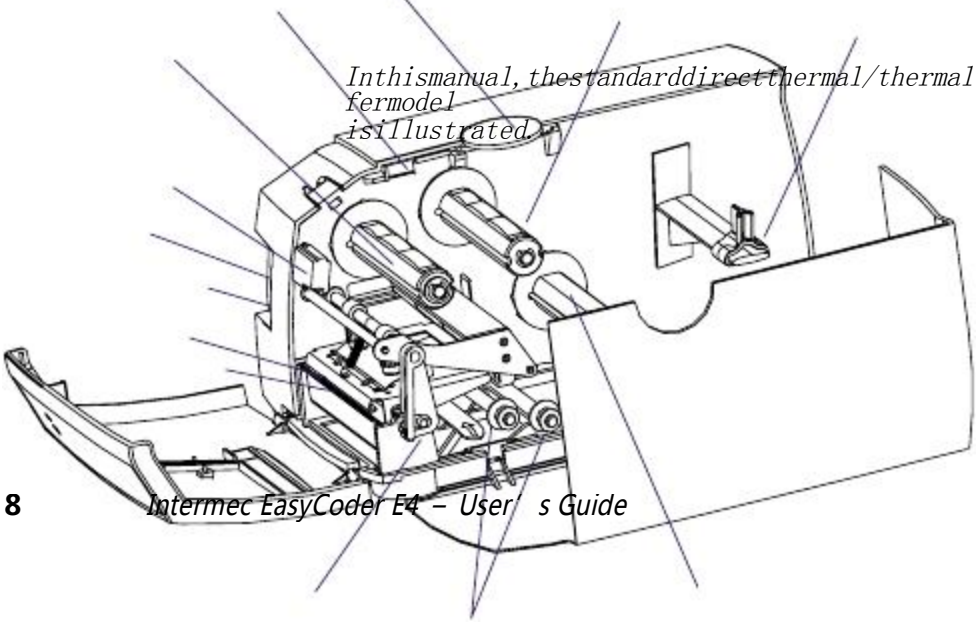
Printhead Lift Lever

Liner Takeup Hub

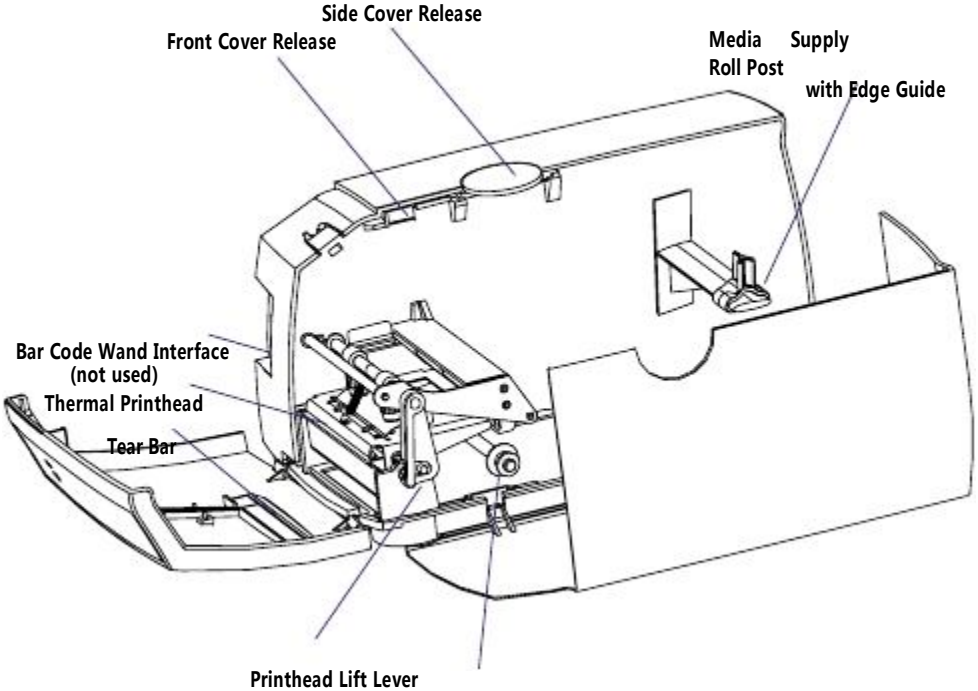
Guide Shafts

The left side of the case is not designed to be opened by the operator.

In this manual, the standard direct thermal/thermal transfer model is illustrated.



Main Parts – LinerLess Model



Theleftsideofthecaseisnotdesignedtobeopenedbythe operator.

Connections

Power

1 Place the printer on a level surface, near an AC outlet. You should be able to easily access the printer to load media, to load a ribbon, and to remove the printout.
2 Check that the printer is switched off.
3 Connect the power cord to the receptacle on the rear plate and to an electrical outlet (110-120 or 220-240 VAC.)

Computer

The EasyCoder E4is fitted with a 36 pin female Centronics connector for the parallel interface port and a DB-9 pin female connector for the RS-232 serial interface port.

- *Centronics Parallel Interface:* Use the parallel interface with the Intermec InterDriver (for Windows) because it is faster than the serial interface.
- *RS-232 Serial Interface:* Use the serial interface with the Direct Protocol because you can receive error messages from your printer. This is not available when using the parallel interface.

Switch off both the PC and the EasyCoder E4 before connecting them together.

The EasyCoder E4 is also fitted with a Type 3 PCMCIA slot, which can hold up to two Type 1 or Type 2 PCMCIA cards (5V.) These can be Memory cards or Font cards and are optional.

PCMCIA card ejection buttons

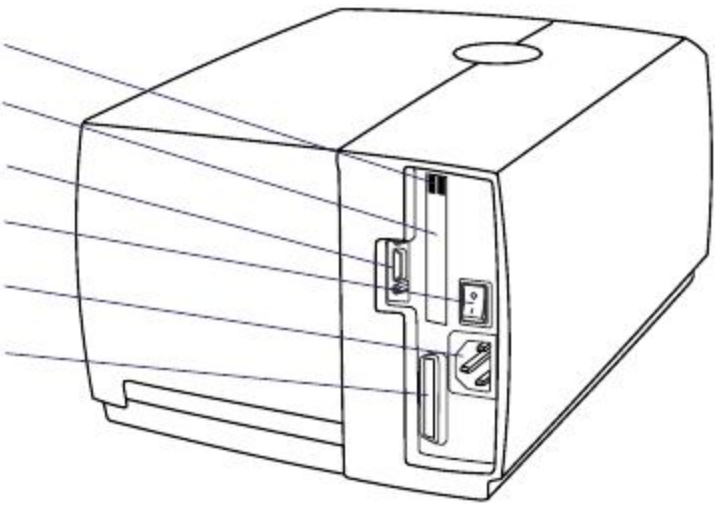
PCMCIA card slot

RS-232 serial interface

ON/OFF switch

AC power cord receptacle

Centronics parallel interface



Controls and Indicators

Power LED

TheEasyCoderE4hasonecontrol(theFeedbutton)andone indicator(thePowerLED.)ThePowerLEDistri-coloredand indicatesthestatusoftheprinter.

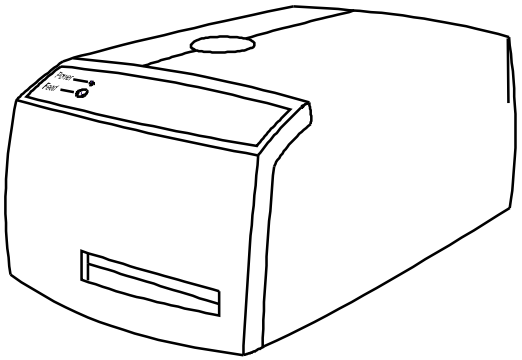
Feed Button

PressFeedtofeedoutablanklabel,ifnolabeldesignhasbeen downloadedtoth

eprinter.

PressFeedtoprintalabelafteralabeldesignhasbeendown-loadedtotheprinterandtheFeedbuttonhasbeensetupto workasaPrintbutton(seeChapter3, “Operation/Printinga Label”).Yopter3, ucanalsous “Operation/Pr eFeedtopr intingTestLabe intatestlals”). bel(seeCha

LED shows	Meaning
No light:	Power off
Green: · Steady · Flashing	Power on Busy (executing or receiving data)
Amber: · Momentarily	During power on
Red: · Steady	Error condition,for example... - Printhead lifted - Out of media - Out of ribbon - Media jam in cutter



Chapter 3

Operation

Media Load – Tear-Off (Straight-through)

Thesameloadingprinciplesapplytothermaltransferreceiving mediaaswellasdirectthermalorLinerLessmedia.Allkinds ofmediacanbeused.However,LinerLessmediarequiresan EasyCoderE4LinerLessprinter.

Caution!

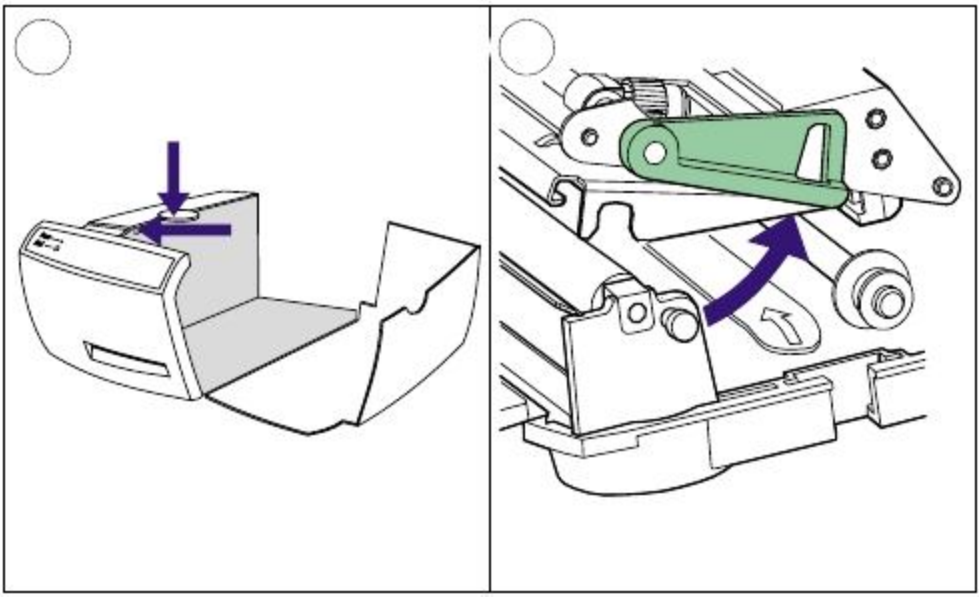
Beforeshippingtheprinter,alwaysremoveanyrollfromthe mediasupplyrollpost.

HINT!
Tofacilitatemediaandribbonload,youcanremovethesidecover byopeningithalfway(45°)andlifttthehingesoutoftheirpockets inthebottommoulding.

1

clockwiseto

12



Media Load – Tear-Off, cont.

3 *Removeanyemptycorefromthemed*	4 *Checkthatthemediasupplyrollposti*
5 *Routethemediabetweentheguideroll*	6 *Pushthemediaasfarinasitwillgoand*

Media Load – Tear-Off, cont.

7 *Turntheprintheadliftleverclockwi*	8 **1** **2** *Closethefrontandsidecover*
9 **2 x Feed** *Printouttwoblankcopiesbypressing*	10 **E4 LinerLess** **E4 Standard** *Totearoffthemedia,pullitdownward* *sagainst*

Media Load – Peel-Off (Self-strip)

Thissectiondescribesthecasewhenself-adhesivelabels aresepa-
ratedfromthelinerimmediatelyafterprinting.Theliner isthen
wounduponanintegrallinertakeuphub.Thisisalsoknown as “ Self-strip ” operation.ItcannotbewithontheEasyCoderE4 LinerLessprinter

Caution!

Beforeshippingtheprinter,alwaysremoveanyrollfrom the
mediasupplyrollpost.

HINT!
Tofacilitatemediaandribbonload,youcanremovetheside cover
byopeningithalfway(45 °)andliftthehingesoutoftheirpockets
inthebottommoulding.

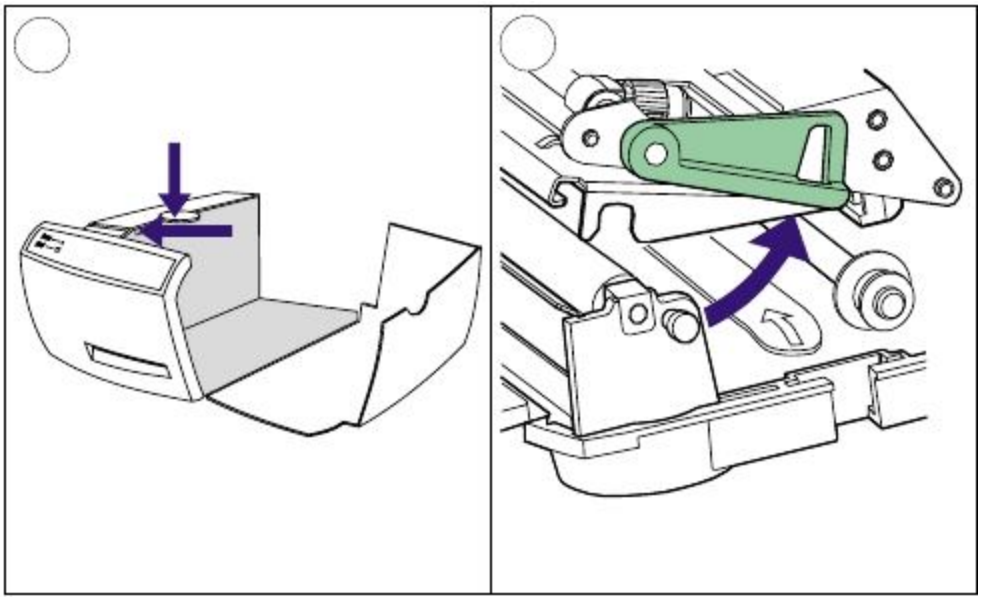
1

1

clockwiseto

Openthesideandfrontcovers.

raisetheprint head.



Media Load – Peel-Off, cont.

3 **2** **1** *Pulloutthecliponthelinertakeuphu*	4 *Removeanyemptycorefromthemed*
5 *Checkthatthemediasupplyrollposti*	6 **40 cm (15 inches)** *Removelabelsfromthe* ***fi***

Media Load – Peel-Off, cont.

7

8

2

1

Routethelineraroundthetearbarandthelinerwindupthelineronthetakeuphubandsecure driverollerandbackundertheprintmechanismwiththeclip.Windupthelinersothemedia andthelower(rear)guideshaft.

9

b e c o m e s t i g h t

10

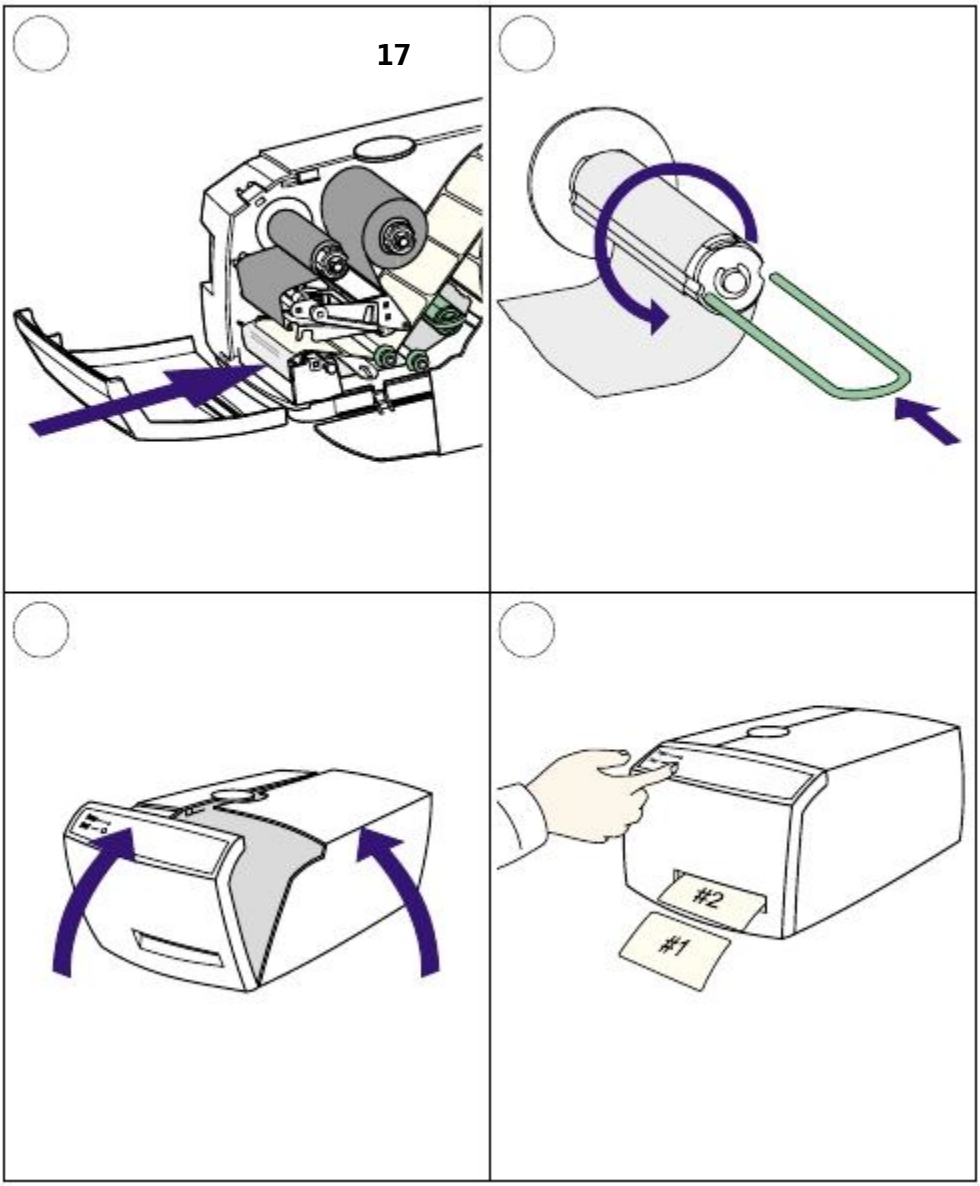
1

2

2 x Feed

Closethecovers.

Printouttwoblankcopiesbypressing **Feed** *twice. If loadingmediafortheﬁrsttimeorwhenswitching toanewtypeorbrandofmedia, insteadprintatest labelasdescribedattheendofthischapter.*



Media Load – External Supply (Fan-fold)

TheEasyCoderE4canprintonvarioustypesofmediaplaced externallybehindtheprinter,forexamplesboxesoffan-folded tickets.LinerLessmediacannotbeplacedexternally.

Forsmoothoperation,ensurethattheexternalmediasupply is placedlowerthantheprinter’sintakeslot.

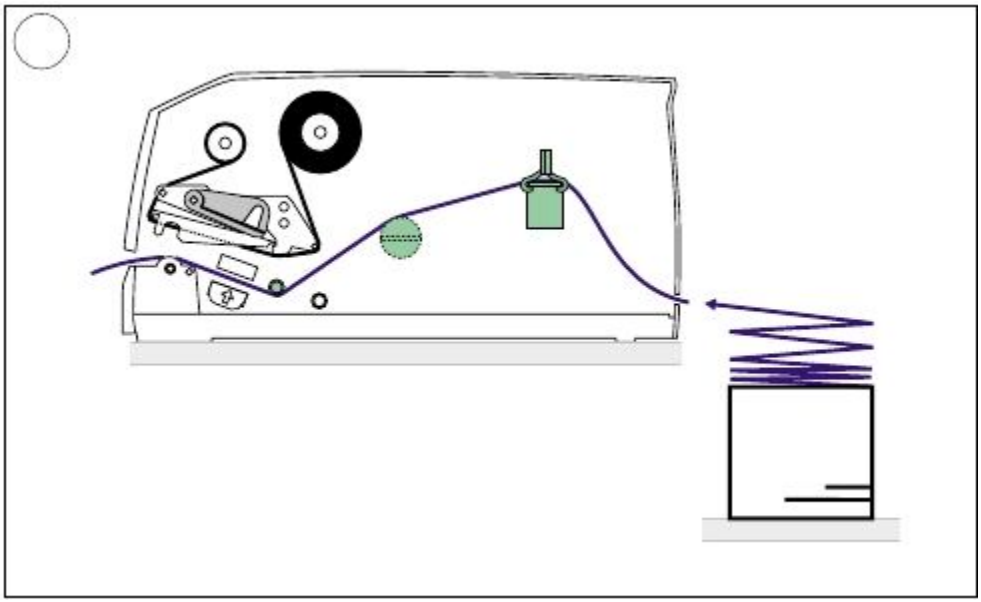
Whenusinganexternalmediasupply,takecaretoprotectthe mediafromdust,dirtorotherforeignparticles,thatcanimpair theprintoutqualityorcauseunnecessaryweartotheprinthead.

Dependingonbrandandquality,alldirectthermalmediaare moreorlesssensitivetoheat,directsunlight,moisture,oil, plasticizers,fat,andothersubstances.Youshouldprotectthem accordingly.

1

Thisdiagramshowsthemediapathfromanexternalsupply.

18



Media Load – Cut-Off (option)

The standard model of EasyCoder E4 can as an option be fitted with a paper cutter that can cut of paper strip or liner between labels. The thickness of the media to be cut should be within 78-175µm (equal to a paper weight between 78 and 175g/m²). Minimum practical copy length is 38.1mm (1.5 inches).

The cutter cannot be used to cut through any adhesive such as labels on liner. It cannot be used with Liner Less media.

The cutter is controlled by **CUT** or **CUTON** instructions in the EasyCoder E4 Direct Protocol.

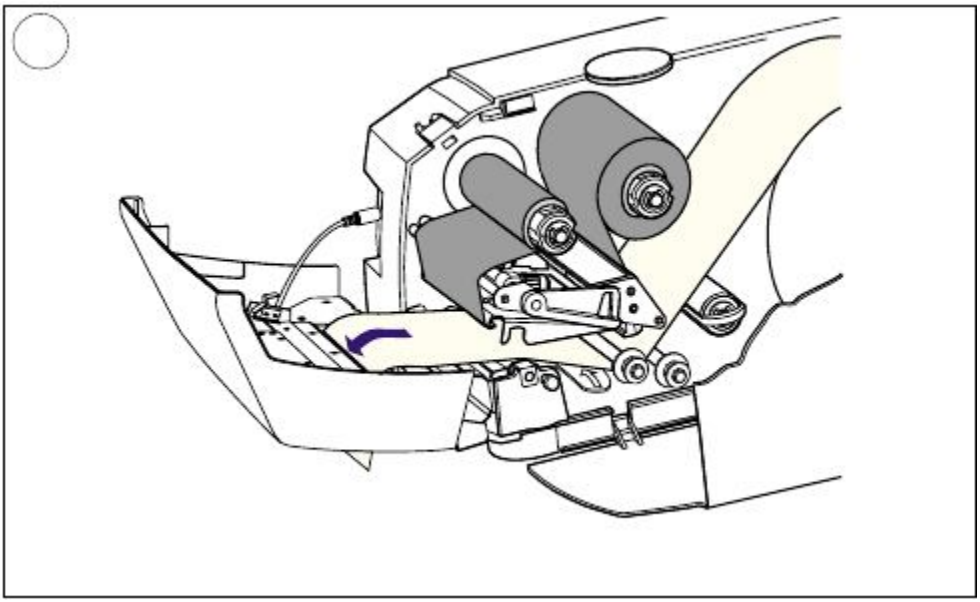
The cutter can be tilted forward to facilitate cleaning and media load. A microswitch prfevents the cutter from running when in open position.

The built-in label taken sensor of the standard EasyCoder E4 does not work when a cutter is installed.

Media load follows the same principles as Tear-Off (Straight-through) operation, see earlier in this chapter, but route the media through the cutter as illustrated below.

1

Loadmediaaccordingtotheinstructionsfortear-offoperation,butroutethemediat
hroughthe
cutterlikethis.



Ribbon Load

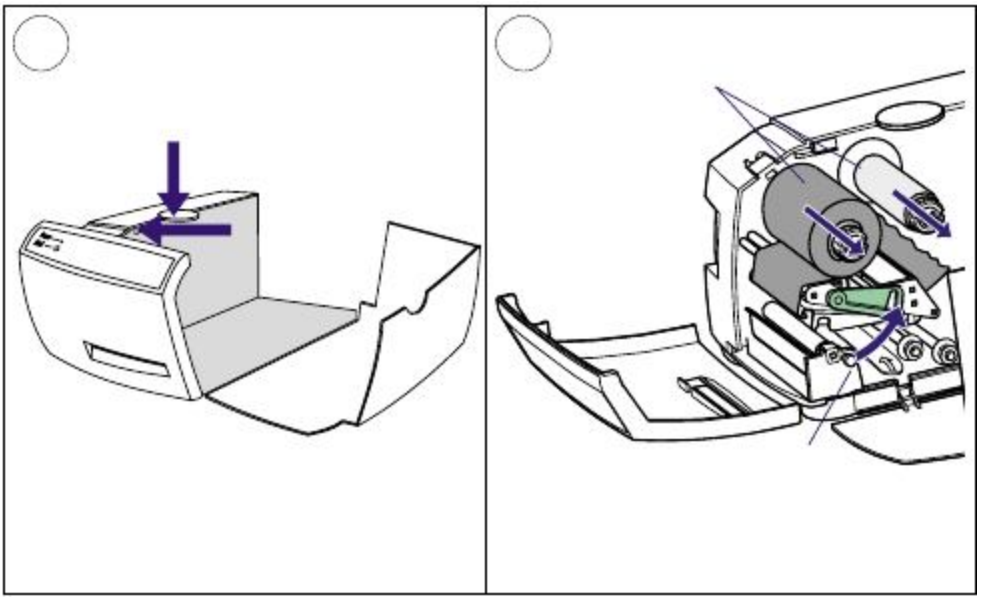
1

1

2

Raisethepintheadandremoveanyusedribbona
nd
theemptyribboncore.Keeptheemptycoreforu
sed

20



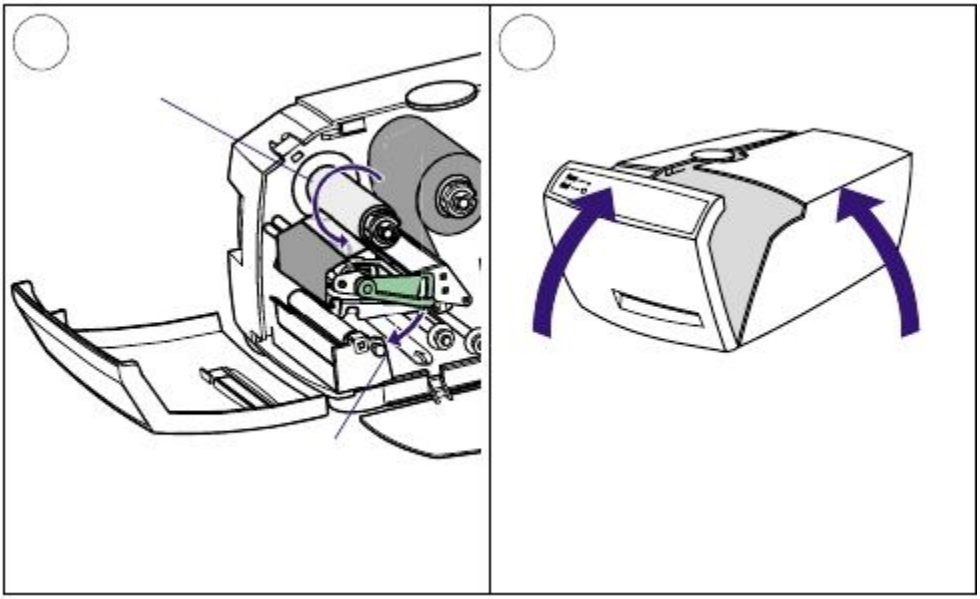
Ribbon Load, cont.

3 *UnpackarolloforiginalIntermecthe*	4 **20 cm (8 inches)** *Presstheribbonrollontotheribbons*
5 **1** **2** **3** *Pressanemptycoreontotheribbonrew indhub* *(1.)Tapethetransparentribbonlead*	6 *Bothribboncoresmustrotatecount*

Ribbon Load, cont.

7

2



Printing Test Labels

TheEasyCoderE4printsatestlabelcontainingtheprinter's currentsetupandotherusefulinformation.Italsocontainsatest barandacrosshatchpatternthatallowyoutocheckthattheprintheadisperformingcorrectly.

Anotherimportantfunctionisthatthelabelstopsensorisautomaticallyadjustedforcharacteristicsofthetypeofmedialoaded whenthetestlabelisprinted(testfeed.)Alwaysprintatestlabel whenyouhavechangedtoanothertypeorbrandofmedia.Thisisespeciallyimportantwithself-adhesivelabelssothesensorcan beadjustedforthetransparencyoftheliner

Toprintthetestlabel:

1Switchoffttheprinter.

2PressandholdtheFeedbuttonwhileswitchingtheprinter on.

3WhenthegreenLEDflashes,releasetheFeedbutton.

4TheprintercarriesoutaTESTFEEDandsetstheprinthead resistance.

5Afteradelay,thetestlabelisprintedasillustratedonnext page.

6TheprinternowenterstheDumpMode,inwhichallASCII charactersreceivedfromthehostonanyportwillprinted onlabels.

7ToexittheDumpMode,brieflytaptheFeedbutton.(Ifyou presstheFeedbuttonforthreesecondsormore,theprinter willberesettofacorydefault.)

Testlabelsaredesignedtobeprintedoncontinuousstock.

Ifthe printerisloadedwithlabels,somelinesofthetestlabelmaybe positionedinthegapsbetweenthelabels.

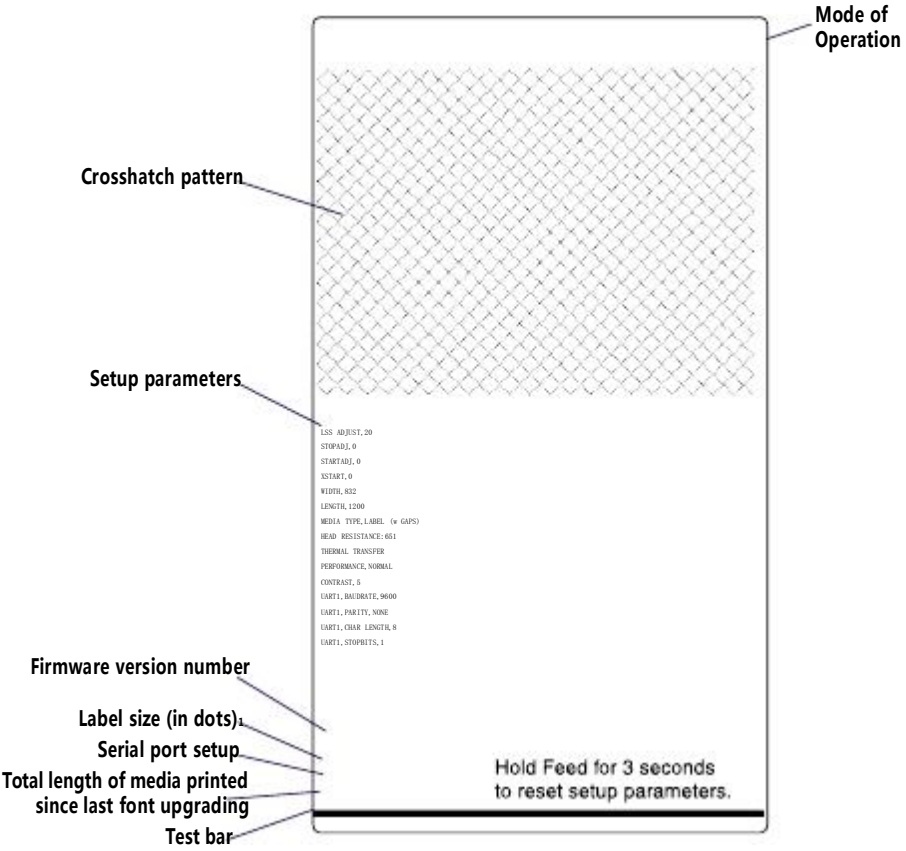
Testlabelscanbeprintedoneitherdirectthermalorthermal transfermedia.Iftheprinterhasbeenloadedwiththewrong

media(forexamplewhenitissetupfordirectthermalprinting
andthermaltransferribbonisloaded),theLEDturnsredwhen
youattempttoprintatestlabel.Correctthefault,thenpress
Feedtocanceltheerrorstatusandthetestlabelisprinted.If
transferribbonisnotloadedwhenitisrequired,thelabelwill
beblank.

Whenyouchangetheprinter's
setup,thenewsettingsaresaved
andwillremaininoperationuntilyouresetorchangethem,even
aftertheprinterhasbeenswitchedoff.

Printing Test Labels, cont.

Exampleofatestlabel:



1 *thetestlabelisthesizefor whichtheprinterhasbeen setup.Thus,itisnotneces- sarilytheactualsizeofthe labelsloadedintotheprinter.*

Printing a Label

Intermec InterDriver

You can print labels using the Intermec InterDriver, Intermec LabelShop, or the EasyCoder E4 Direct Protocol programming language.

Intermec LabelShop

If you are using the Intermec InterDriver for the EasyCoder E4:

- Design a label in, for example, MSOffice or Intermec LabelShop.
- Enter the number of copies required in the InterDriver application.
- Send the label to print.

E4 Direct Protocol

If you are using some version of Intermec LabelShop:

- Follow the instructions in the manual for the version of LabelShop installed in your PC.

If you are using EasyCoder E4 Direct Protocol, there are two

ways to prepare and print a label. These methods allow the EasyCoder E4 also to be used with other operating systems than the various versions of Microsoft Windows.

- Type instructions in the Direct Protocol programming language into a terminal program, which sends them to the printer one instruction at a time. To print a label, send a **PRINTFEED** command.
- Type instructions in the Direct Protocol programming language into a text editor and send the resulting text file to the printer using DOS Copy or a terminal program. If you include a **PRINTFEED** command in your file, the printer will print the label immediately.

You can tell the printer how many copies you want by adding a number to the **PRINTFEED** command, for example **PRINTFEED22**.

When you have sent a label to the printer, it will be printed out whenever you send a **PRINTFEED** command. If you switch off the printer or send any command starting a new label, the previous label format will be lost.

If you have enabled the **Feed** button to work as a print button using a **PRINTKEY ON** command, a new copy of the label presently stored in the image buffer will be printed each time you press the **Feed** button.

See the *EasyCoder E4 Direct Protocol, Programmer's Reference Manual* for further information.

Chapter 4

Printer Setup

Setup Methods

standforandwhatchoicesyouhave.Forafulldescription,please
refertothe*EasyCoderE4DirectProtocol,Programmer's sReference*
Manual.

Communication Setup

TheEasyCoderE4canreceivedataonboththeparallelandserial
port,sothereisnoneedtospecifywhichportistobeused:

- Eithercomposeatextfilecontainingtherequiredsetupcommandsandsendittotheprinterviatheparallelport,
- orestablishtwo-wayserialcommunicationbetweenprinter andhostcomputerasdescribedbelow.

HowtosetuptwO-wayserialcommunicationwiththeEasyCoderE4:

1Printoutatestlabeltocheckthe printer's RS-232serialport setting(seeChapter3, "Operation;PrintingTestLabels").
2Configuretheserialportonyourhostcomputertomatchthe printer'ssettings.
3UsetheSYSVAR(18)=ncommandtosetwhatkindof informationwillbepassedbackfromtheprinter(called the VerbosityLevel),seebelow
4UsetheSETUPcommandtoconfiguretheserialportsettings.

SYSVARVerbosityLevelsettings:

-1Alllevelsenabled(Default)
0Noverbosity
1Echoreceivedcharacters
2 "OK" aftercorrectcommandlines
4Echoinputcharactersfromcommunicationport
8Errorafterfailedline

Bitscanbecombinedsoforexample**SYSVAR(18)=3**means both *"Echoreceivedcharacters"* and *"OKaftercorrectcommand lines"*.

Oncetheprinterandcomputercancommunicateusingthe defaultserialportsettings,youcanchangethesettingstowhatevercommunicationssettingsyourequire,firstontheprinterand thenonthecomputer.

Onceyouhaveestablishedaworkingserialcommunicationb
oth
waysbetweenprinterandhost,youcanusethecommandto
configuretheprinterasdescribedonthefollowingpages.

Communication Setup, cont.

Bydefault, theserialportissetfor9600baud, noparity, 8 data
bits, 1stopbit, XON/XOFFdisabledbothways. Notethatas soonasaparameterischanged, youmustchangethesetupoft he
hostthesameway, orthecommunicationwillbelost.

- **Baud Rate**
  Thissettingcontrolsthespeedoftheserialcommunicat ion
  betweenprinterandhost(1baud=1databitpersecond.)
  Thereare8options:
  300600120024004800960019200384000
  Setupstring, example:
  SETUP "SER-COM, UART1, BAUDRATE, 9600"↵

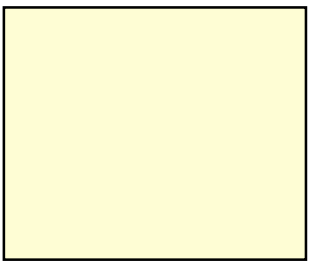
- **Parity**
  Thissettingcontrolshowthesoftwarewillcheckforerr orsin
  theserialcommunication. Thereare5options:
  NoneEvenOddMarkSpace
  Setupstring, example:
  SETUP "SER-COM, UART1, PARITY, NONE"↵

- **Character Length**
  Thissettingcontrolshowmanybitsareusedtospecifya characterintheserialcommunication. Therearetwoopt ions:
  7
  8

  Setupstring, example:
  SETUP "SER-COM, UART1, CHAR-LENGTH, 7"↵

- **Stop Bits**
  Thissettingcontrolshowmanybitsareusedtospecifyas top
  characterintheserialcommunication. Therearetwoopt ions:
  1or2

Inthesetupstringexamples, adouble-headedarrow(asin "CHAR-LENGTH") indicatesa



Communication Setup, cont.

- **Data Flow Control**

  Data fl
  owcontroldeterminesserialcommunicationbetween
  printerandhost.Itpreventscharactersbeinglostwhen
  data
  istransferredbetweenprinterandhostathighspeedsov
  erthe
  RS-232serialport.Itisimportantthattheprinterandh
  ost
  havethesameconfiguration.

  Therearethreerecommendedsettingsforcontrollingda
  ta
  flowbetweenprinterandhost.

  -Noflowcontrol

  RTS/CTSisdisabled
  XON/XOFF,DatafromHostisdisabled.
  XON/XOFF,DatatoHostisdisabled

34dec.

Note:
Itisnotrecommendedthatyou enableXON/XOFF,Datato Host.

Inthesetupstringexamples, adouble-headedarrow(asin "CHAR_LENGTH")indicatesa mandatoryspacecharactersinthe commandline.

Quotationmarks("")areASCII

-RTS/CTS

Thisprotocolcontrolscommunicationbyhandshakesignalsthroughseparatewiresinthecable.
RTS/CTSisenabled
XON/XOFF,DatafromHostisdisabled.
XON/XOFF,DatatoHostisdisabled

-XON/XOFF,DatafromHost

ThisprotocolcontrolscommunicationusingthespecialcharactersXON(ASCII17dec.)andXOFF(ASCII19dec.)whicharetransmittedonthesamewiresasthedata.
RTS/CTSisdisabled
XON/XOFF,DatafromHostisenabled
XON/XOFF,DatatoHostisdisabled

Setupstrings,examples:

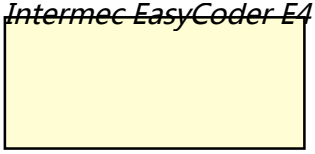
SETUP "SER-COM,UART1,FLOWCONTROL,RTS/CTS,DISABLE"↵

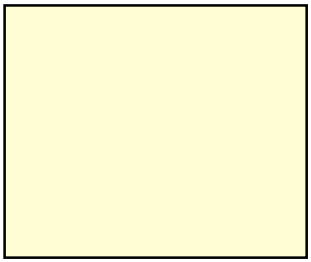
SETUP "SER-COM,UART1,FLOWCONTROL,XON/XOFF,DATA-TO-HOST,DISABLE"↵

SETUP "SER-COM,UART1,FLOWCONTROL,XON/OFF,DATA-FROM-HOST,ENABLE"↵

• **New Line Character**

Thissettingspecifiesthecharacter(s)transmittedfromprintertohosttoinitiateswitchingtoanewline:
-CR(ASCII13dec.)
-LF(ASCII10dec.)
-CR/LF(ASCII13+ASCII10dec.)





Print Location Setup

Recommended Adjustments:

Peel-Off(Labelwgaps):
StartAdjust:-119
StopAdjust:-33

Tear-Off(Ticketwmark):
StartAdjust:-152
StopAdjust:0

Tear-Off(Labelwgap):
StartAdjust:-152
StopAdjust:0

Tear-Off(Var.LengthStrip):
StartAdjust:-136
StopAdjust:+75

Tear-Off(FixLengthStrip):
StartAdjust:-136
StopAdjust:+150

Cut-Off(Strip):

StartAdjust:
StopAdjust:

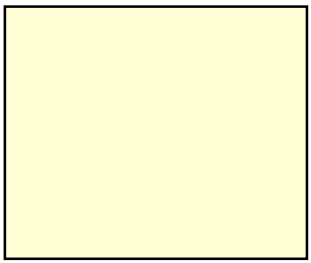
Cut-Off(betweenlabels):
StartAdjust:-250
StopAdjust:+100

Inthesetupstringexamples,
adouble-headedarrow(asin

“CHAR_LENGTH”)indicatesa
mandatoryspacecharactersinthe
commandline.

Quotationmarks(“”)areASCII
34dec.

30



Print Location Setup, cont.

- **Print Window**
  Theareaonthemediawhichcanbeusedforprinting(print window),isspeci fi edbymeansofthreeparameters,whichare allgivenasapositivenumberofdots.Itisimportanttos et theprintwindowsonoprintingcanoccuroutsidethemedi a orribbon,whichmayshortenthelifeoftheprintheaddue tooverheating.

  -X-Start
  Speci fi esanoffsetfromtheinnermostdotontheprint-head.WhentheX-Startvalueissetto0,theprintarea starts1mm(0.04inches)fromtheedgeofthemedia,th at isclosesttotheprinter , scentersection.Byincreasingthe X-Startvalue,youcanmovetheorigin(X=0)outwards , makingtheinnermarginwider.

  -Width
  Speci fi esthewidthoftheprintarea,startingfromthe positionoftheoriginasde fi nedbytheX-Startvalue.The sumoftheX-StartandWidthvaluesmustnotexceedthe widthoftheprinthead(832dots.)

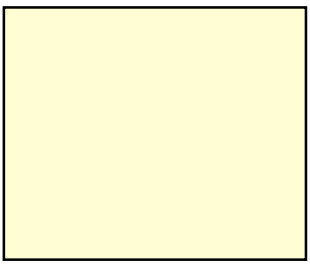
  -Length
  Speci fi esthelengthoftheprintableareafromtheorigin andalongtheY-axis.Thisvaluedecidesthemaximum amountofmediafeedwhenusinganymediatypeexcept “ Var.lengthstrip ” (seeMediaTypebelow.)Incaseoflabels, tickets,tags,or fi xedportionsofstrip,entertheexact length.

  Setupstrings,examples:

```
SETUP "SERVICE,MEDIA SIZE,XSTART,30"↵
SETUP "SERVICE,MEDIA SIZE,WIDTH,600"↵
SETUP "SERVICE,MEDIA SIZE,LENGTH,800"↵
```

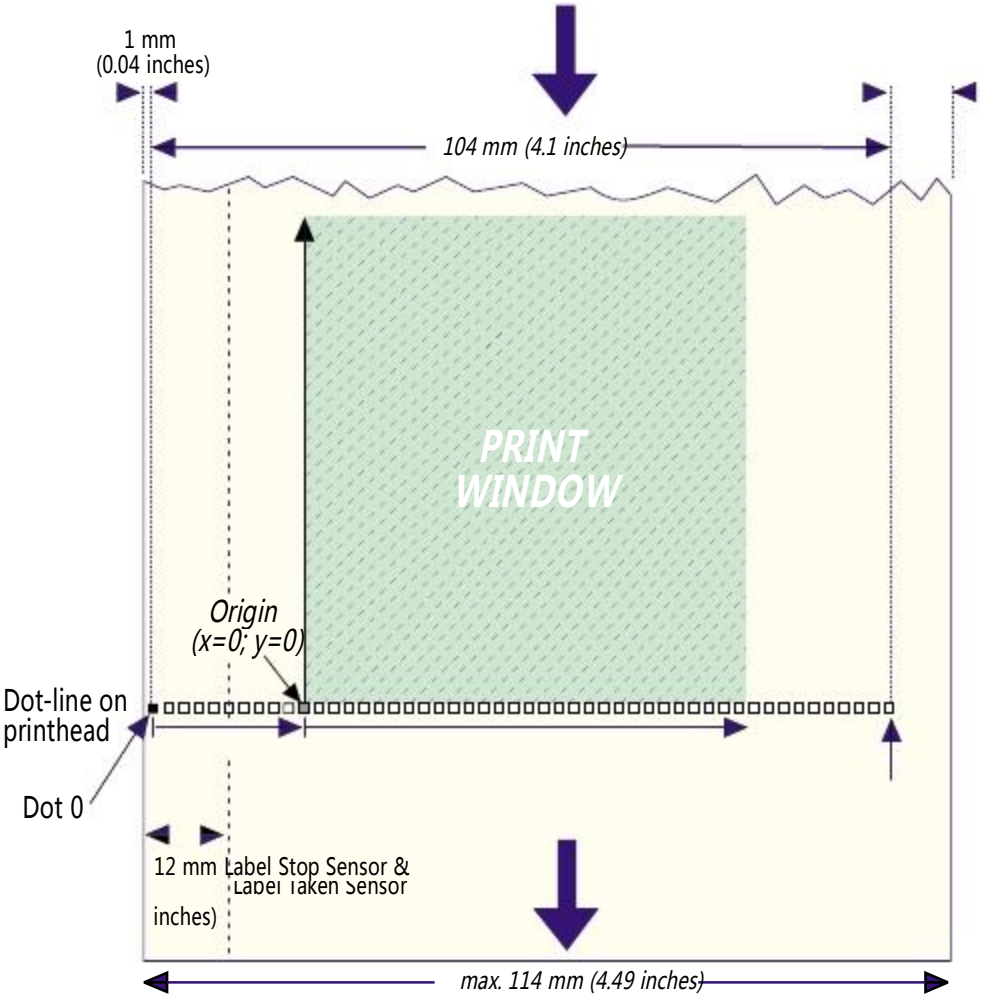
In these setup string examples, a double-headed arrow (as in "CHAR-LENGTH") indicates a mandatory space character in the command line.

Quotation marks ("") are ASCII 34 dec.



Print Location Setup, cont.

Print Window



Media Setup

- **Media Type**
  TheEasyCoderE4canbesettohandle fivedifferenttypesof directthermal mediaorreceivingfacematerial:
  -Labelwithgaps
  -Ticketwithmarks
  -Ticketwithgaps
  -Fixedlengthstrip
  -Variablelengthstrip
  RefertoAppendix2forillustrationsandspeci fications ofthevarioustypes. Itisimportanttospecifythecorrecttype,sothemediafeedwillworkcorrectlyandthelabelstopsensorcandetectthefrontedgesoflabels,tickets,andtagsaswellas out-of-papercondition s.
  Setupstrings, examples:

SETP
SETP
SETP
SETP

"SERVICE,MEDIA TYPE,LABEL (w GAPS)"

"SERVICE,MEDIA TYPE,TICKET (w MARK)"

"SERVICE,MEDIA TYPE,TICKET (w GAPS)"

"SERVICE,MEDIA TYPE,FIX LENGTH STRIP"

"SERVICE,MEDIA TYPE,VAR LENGTH STRIP"

- **Paper Type**

  In order to be compatible with previous Intermec printers, the EasyCoder E4 is preset to use a number of standard media and ribbon qualities. Select the appropriate "PaperType" setting among those listed in Appendix 2.

  More preferred ways of setting up the printer for different ribbons and receiving face materials are described in "New Supplies" below and in Appendix 5, "Printer Setup with the BarCodeWand."

  Setup string, example:

  SETUP "SERVICE,PRINT DEFS,PAPER TYPE,UBI HP 07"

- **New Supplies**

  When using direct thermal media and transfer ribbons, you can send a text string to the printer to indicate the supply type. See Appendix 2 for recommended "NewSupplies" settings. This method of setting up the printer is preferred to obtain the best print quality and print head lifetime.

In these setup string examples, a double-headed arrow (as in "CHAR LENGTH") indicates a mandatory space character in the command line.

Quotation marks ("") are ASCII 34 dec.

Media Setup, cont.

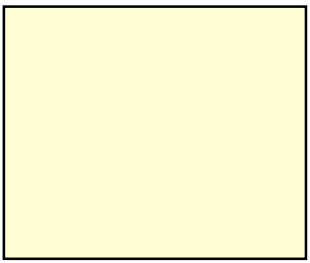
Print Setup

-Normal
-High

Normalprintspeedgivesthebestprintoutqualityfor demandinglayouts,containingforexampleladderstyle bar
codesor fi
ne-detailedimages.However,highspeedgivesan acceptablequalityformostapplications.

Setupstrings,examples:

SETUP "SERVICE,PERFORMANCE,NORMAL"↵
SETUP "SERVICE,PERFORMANCE,HIGH"↵



Testfeed

Thelabellengthisdefinedasthedistancebetweengaps,detec-
tionslots,orblackmarks.Measuretheactualdistancefromthe
rearendofagaporslottothestartofnextgaporslot.Incaseofblackmarks,measurethedistancebetweentheforward
edgesoftwoadjacentmarksandsubtractthevalueexpressedin
dotsby16.

ByusingaTESTFEEDcommand,ablanklabelisfedoutwhilethelabellengthisautomaticallymeasuredandstoredin
theprinter's flashmemory,andthesensitivityofthelabelstopsensorisadjustedaccordingtothecharacteristicsofthepresently
loadedmedia.

Itisrecommendedtosenda TESTFEEDcommandeverytimeyouchangetoanewlabel/ticketlengthormediatype!

Whenusinglabels/ticketswithalengthexceeding24cm(9.5
inches),theTESTFEEDcommanddoesnotwork,sothelabellengthmustbesetmanuallyusingbothofthetwofollowingsetupcommands.

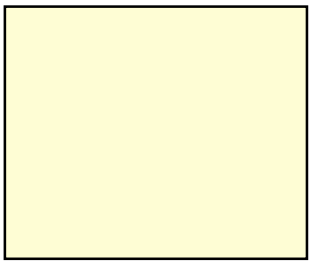
SETUP "SERVICE,TESTFEED,LENGTH,<length in dots>"↵

SETUP "SERVICE,MEDIA-SIZE,LENGTH,<length in dots>"↵

Thedefaultvalueis1200dots(150mm/5.9inches)

In these setup string examples, a double-headed arrow (as in "CHAR-LENGTH") indicates a mandatory space characters in the command line.

Quotation marks ("") are ASCII 34 dec.



Chapter 5

Troubleshooting

Checklist

Symptom	Possible Cause	Remedy	Refer to
Overall weak printout	Wrong Paper Type parameter Low Contrast parameter value Printhead pressure too low Worn printhead Wrong printhead voltage	Change parameter Change parameter Adjust printhead pressure Replace printhead Replace CPU board	Chapter 4 Chapter 4 Chapter 6 Chapter 6 ¤ Call
Printout weaker on one side	Uneven printhead pressure	Adjust pressure	Chapter 6
Weak spots	Foreign particles on media/ribbon Media/ribbon don't match Poor media or ribbon quality Worn printhead Worn platen roller	Clean media/ribbon Change media or ribbon Change media or ribbon Replace printhead Check/replace	n.a. Chapter 3 Chapter 3 Chapter 6 ¤ Call
Overall dark printout	Wrong Paper Type parameter Too high Contrast parameter value Printhead pressure too high Wrong printhead voltage	Change parameter Change parameter Adjust both knobs Replace CPU board	Chapter 4 Chapter 4 Chapter 6 ¤ Call
Excessive bleeding	Wrong Paper Type parameter Contrast parameter value too high Printhead pressure too high Faulty energy control	Change parameter Change parameter Adjust both knobs Replace CPU board	Chapter 4 Chapter 4 Chapter 6 ¤ Call
Transfer ribbon breaks	Wrong Paper Type parameter Ribbon supply unit stuck Bad energy control	Change parameter Adjust Check CPU board	Chapters 4 ¤ Call Service
White areas in transfer printing	Transfer ribbon wrinkled	Adjust	See below
Transfer ribbon wrinkles	Incorrect edge guide adjustment Too strong printhead pressure	Adjust Adjust both knobs	Chapter 3 Chapter 6
Dark lines along feed direction	Foreign objects on printhead	Clean printhead	Chapter 6
White lines along feed direction	Printhead dirty Missing dots on printhead	Clean printhead Replace printhead	Chapter 6 Chapter 6
Large part of dot line missing	Wrong X-start or Width parameter Failing printhead Failing strobe signal	Change parameter Replace printhead Check CPU-board	Chapter 4 Chapter 6 ¤ Call
Printout missing along inner edge	Bad media alignment X-start parameter value too low	Adjust Increase	Chapter 3 Chapter 4

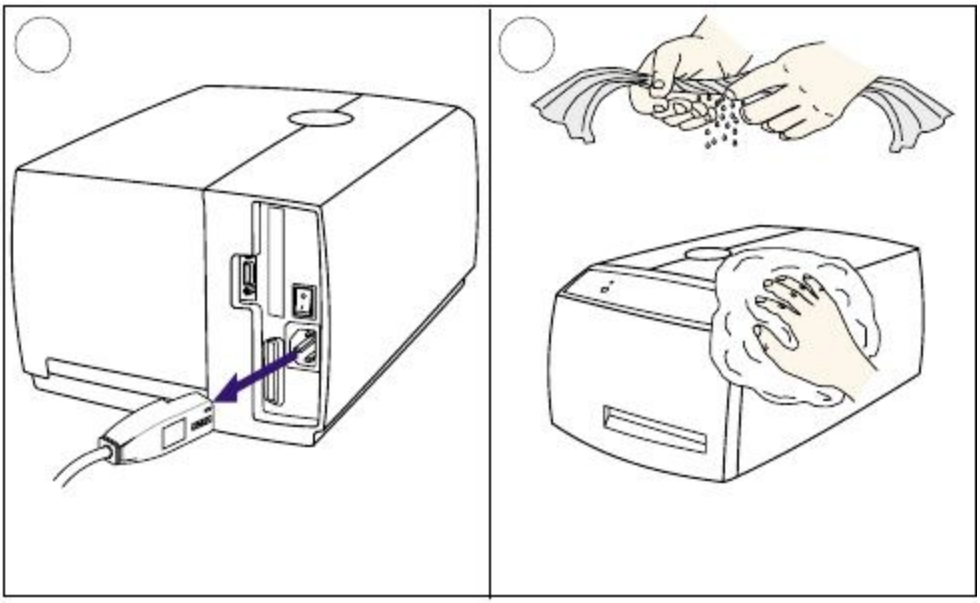
Maintenance

Cleaning the Case

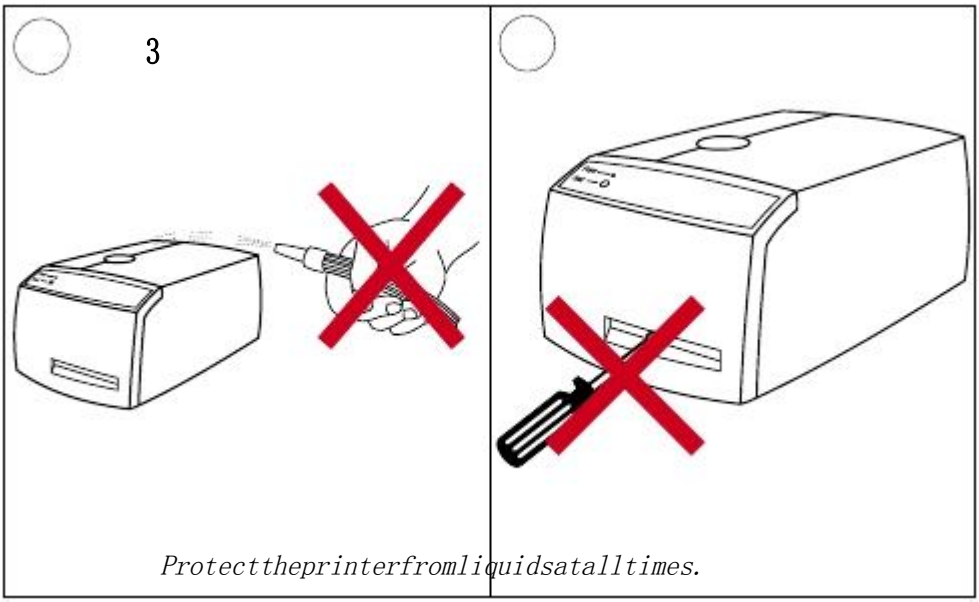
1

Alwaysdisconnectthepowercordbeforecleaning.

ifnecessary,amilddetergent.



Cleaning the Case, cont.



Cleaning the Printhead

Itisimportanttocleantheprintheadregularly,preferably each timeyouloadanewrollofmedia.

Usethespecialcleaningcardtocleantheprinthead.Always disposeoftheusedcleaningcardproperly.

Warning!

Isopropylalcohol[$(CH_3)_2CHOH$;CAS67-63-0]isahighly fl ammable,moderatelytoxic,andmildlyirritatingsubstance.

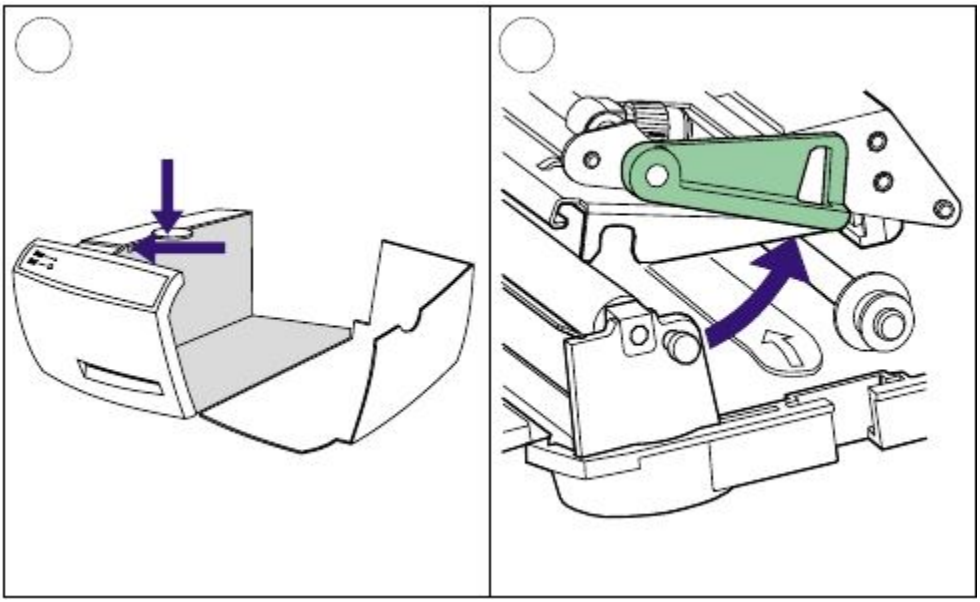
1

1

Intermec EasyCoder E4 – User ' s Guide

Openthesideandfrontcovers.

39



Cleaning the Printhead, cont.

3 4

Openthecleaningcard.Thecleaningcardcontains isopropylalcohol,see"Warning!"noticeonthe previouspage.

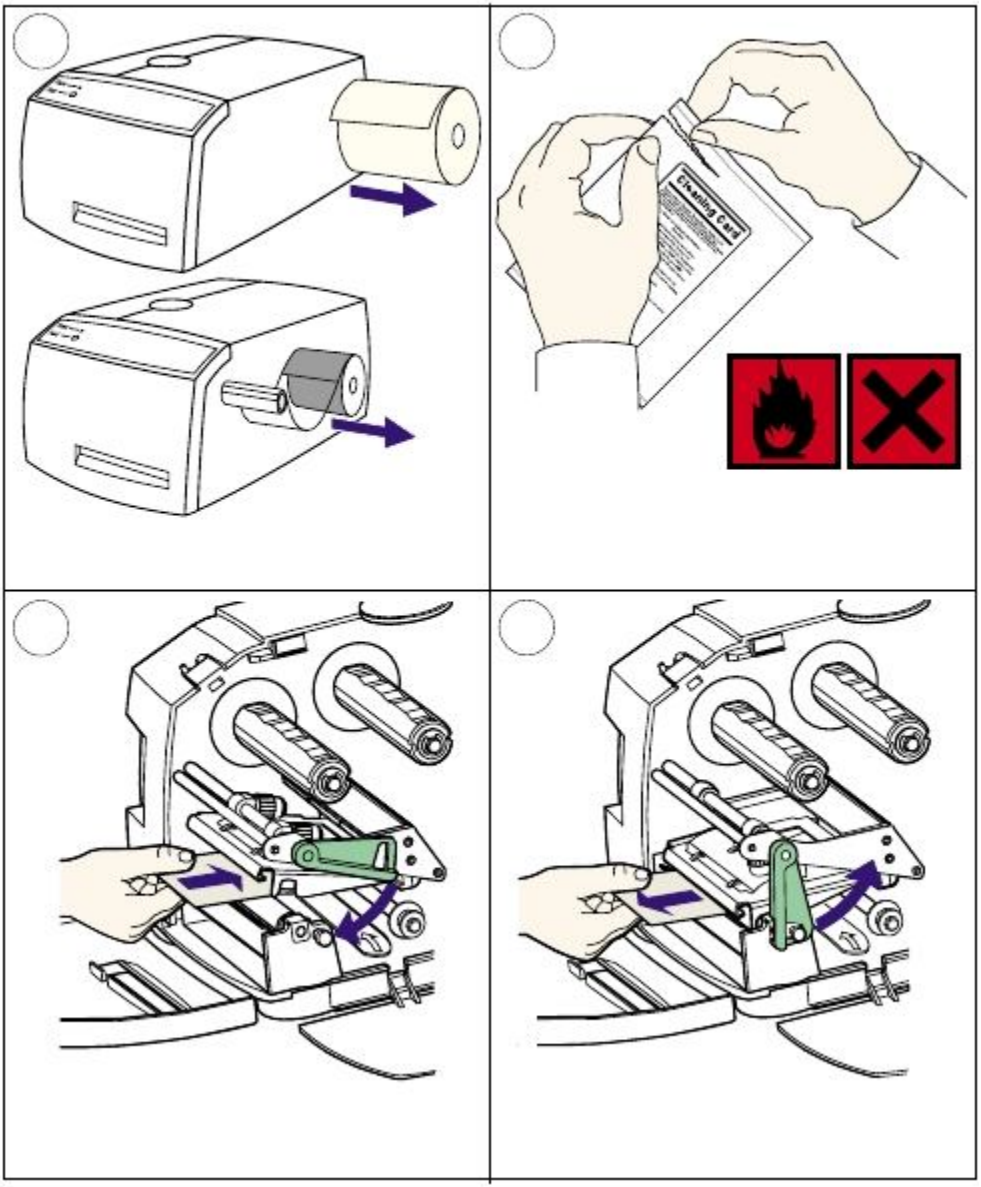
Remove themedia anda nytran sferri bbon.

6

5

Insertmostofthecleaningcardundertheprintheadpullthecleaningcardout(1)andr aisetheprinthead

(1), thenlowerth (2.)
eprinthead(2.)



Cleaning the Printhead, cont.

7

8

1

Insertmostofthe cleaningcardunder theprinthead (1),thenlowerthepr inthead(2.)

Wait30seconds.

9

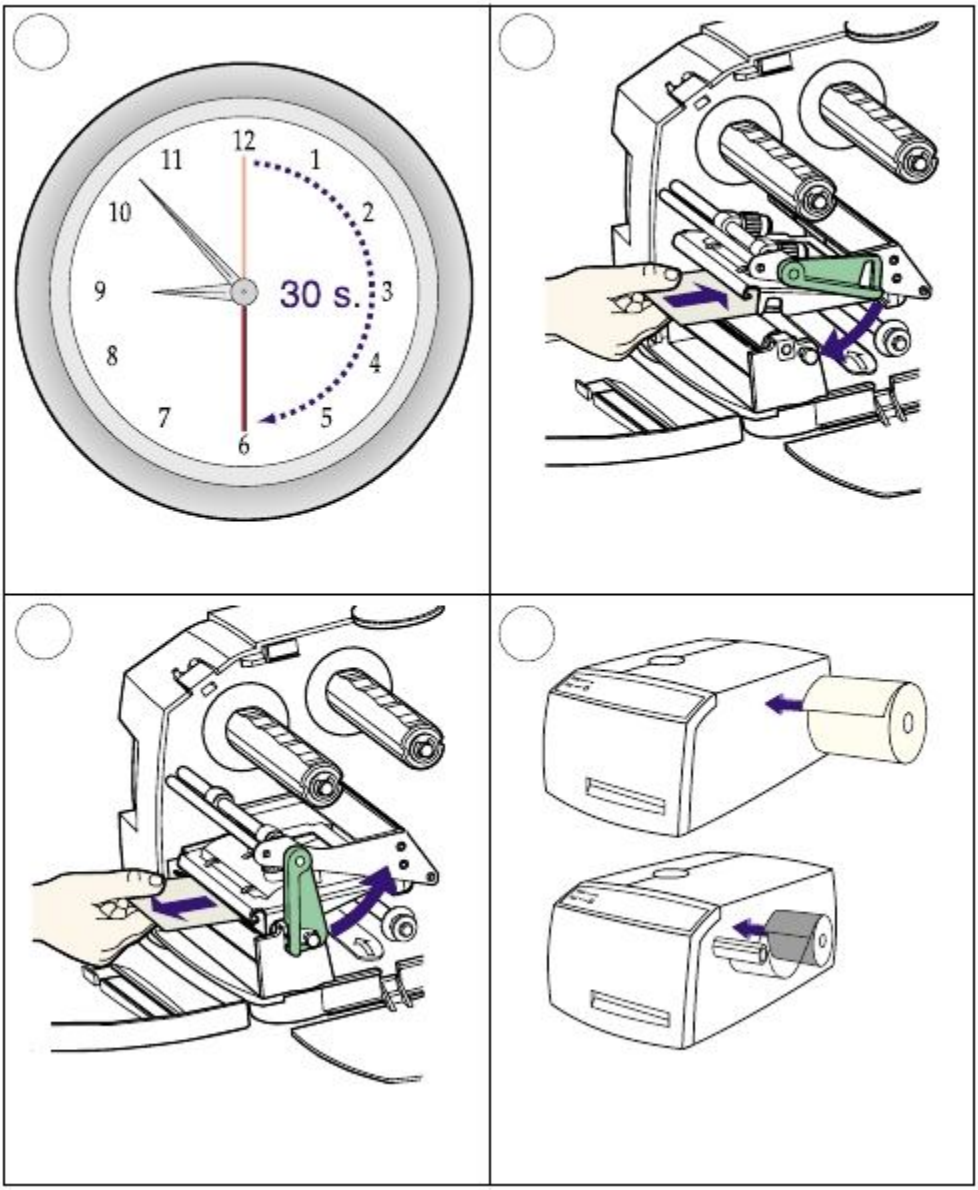
10

1

2

Allowthecleanedprintheadtodryforacouple Pullthecleaningcardout(1)andraisetheprintheadofminutesbeforereloadingmedi aandpossible

(2.)


12
1
2
3
4
5
6
7
8
9
10
11
30 s.

Cleaning the Platen Roller

Whenyoucleantheprintheadwithacleaningcard,theplaten
rolleriscleanedatthesametime.However,iftheplatenroller
becomesheavilycontaminated,itmaybenecessarytoclean
it
separately.

Cleantheplatenrollerwithasoftclothmoistenedwithisopropyl
alcohol.

Cleanthetearbarandtheribbonguidesatthesametimeas
theplatenroller.

Warning!

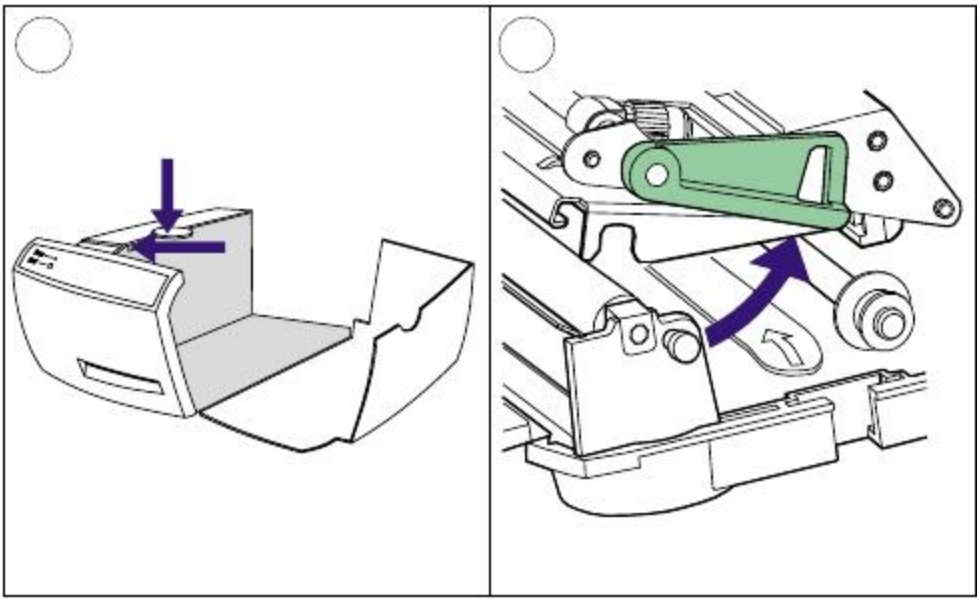
*Isopropylalcohol[$(CH_3)_2CHOH$;CAS67-63-0]isahighly
flammable,moderatelytoxic,andmildlyirritatingsubstance.*

1

1

Raisethepri nthead.

Intermec EasyCoder E4 – User's Guide



Cleaning the Platen Roller, cont.

3 *Removethemediaandanytransferr*	4 **1** **2** *Cleantheexposedfaceoftheplatenro* *llerwhile*
5 *Cleanthetearbarandtheribbonguid*	6 *Reloadthemediaandpossibletrans*

Replacing the Printhead

Whentheprintheadbecomeswornordamaged,itcaneasily bechanged.Theseriesofpicturesbelowdescribeshowto fi ta replacementprinthead.

IMPORTANT!

Aftercompletingthephysicalinstallation,itisimporta ntthatthe printerisinstructedtomeasuretheresistanceofthenewp rinthead andadjustitselfaccordingly.Thiscanbedonebysendingt hefollow- inginstruction:

PRINT HEAD(-1)

AnothermethodistostartuptheprinterintheTestMode,se e “ PrintingTestLabels ” attheendofChapter3, “Operation.”

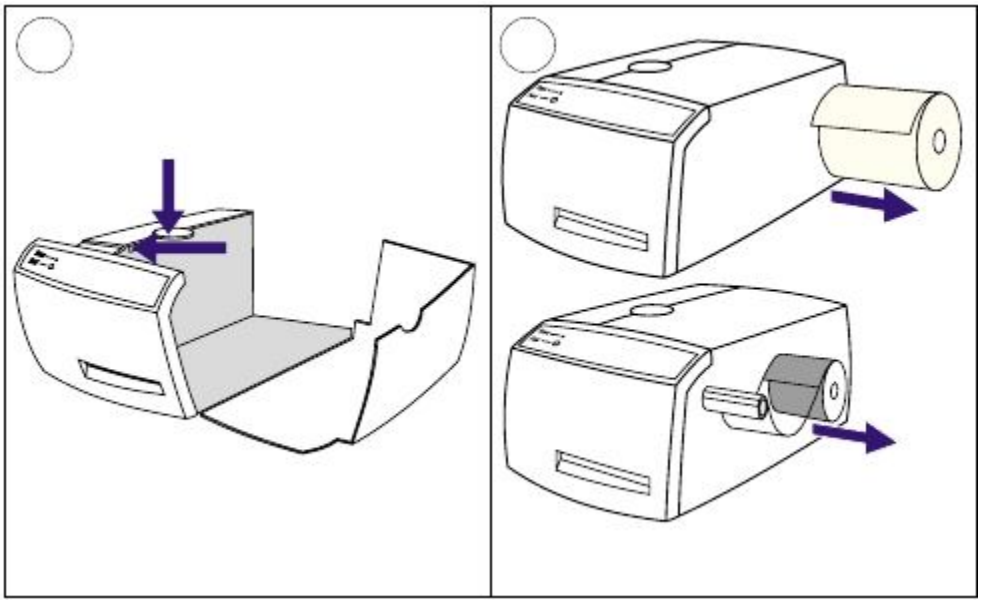
Failuretoadjusttheprintertotheprintheadresistancem ayresultin inferiorprintoutqualityorprematurewear-outofthepri nthead.

1

1

Openthesideandf
rontcovers.

Removethemediaandanytransferribbon.

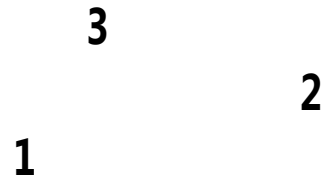


Replacing the Printhead, cont.

3

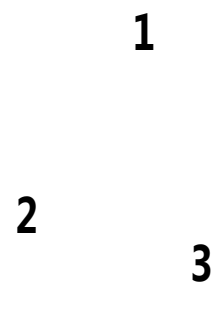
Raisetheprinthead.

5



Slideinthenewprinthead(1),connecttheprinthead cable(2),andhookthespringintoposition(3.)

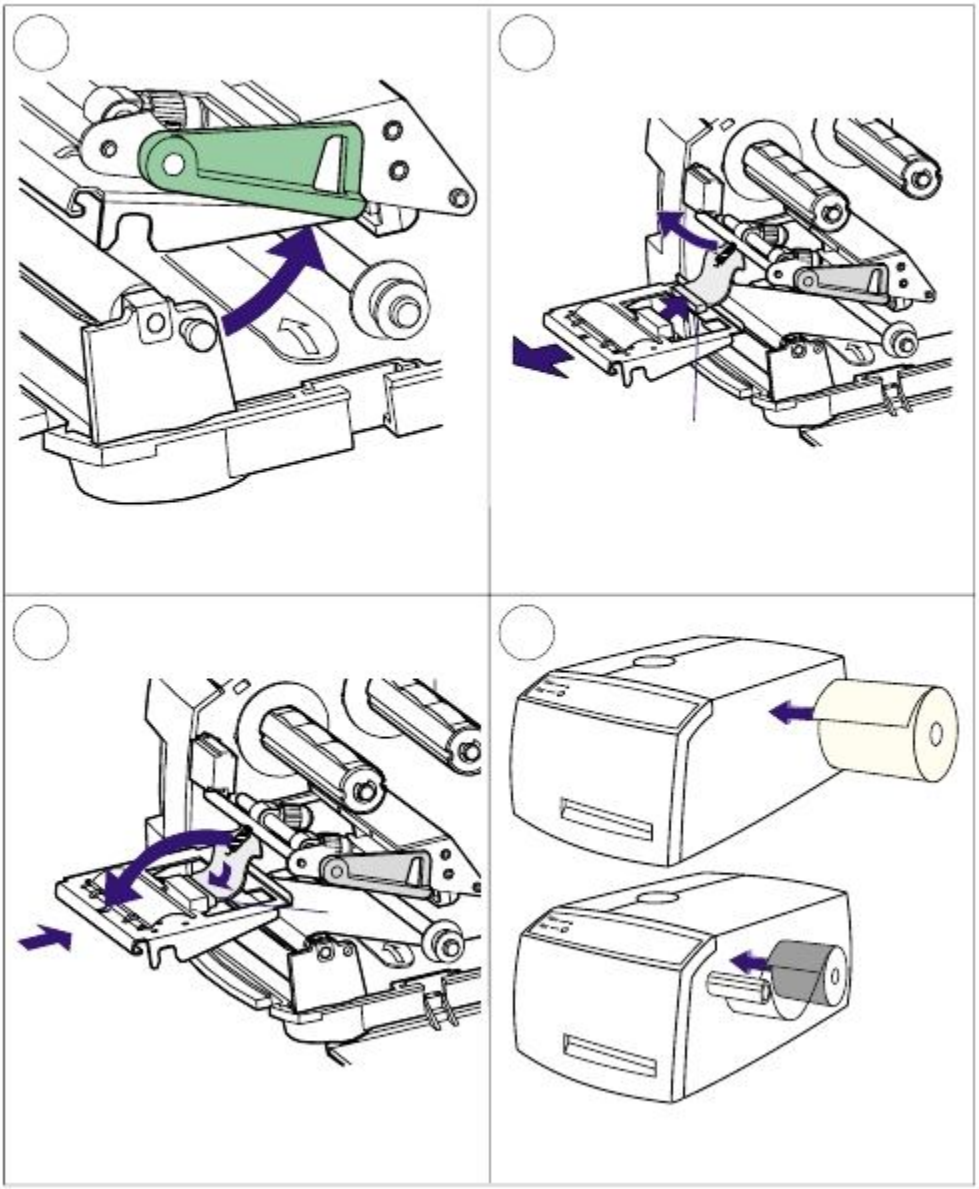
4



Unhookthespring(1),pulltheprintheadforward (2),anddisconnectthecable(3.)

6

45



Adjusting Printhead Pressure

When you print, the thermal printhead must be pressed against the platen roller so that heat can be transferred from the print-head to the transfer ribbon or media. The pressure should also provide sufficient friction to drive the media past the printhead. Too little pressure gives a weak print out quality, while too much pressure can cause ribbon wrinkling and unnecessary printhead wear.

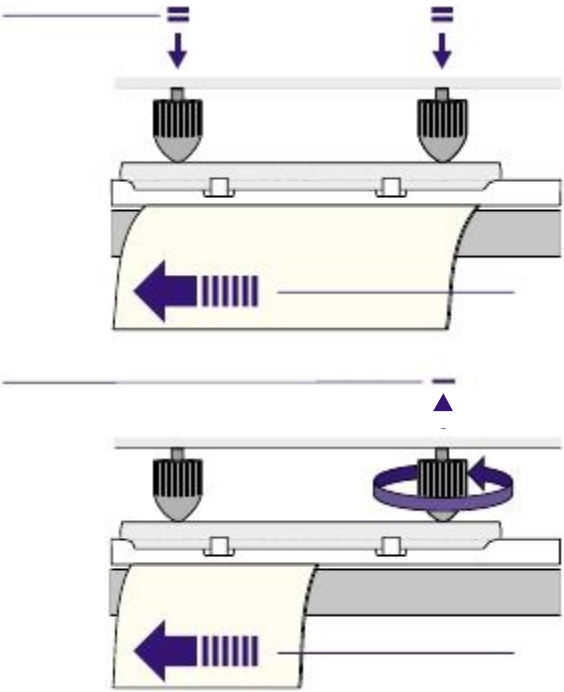
The printer's factory-set for full width, thermal transfer printing or Liner Less print, depending on model. If you change the media to thicker, thinner, or narrower, it may be necessary to adjust the printhead pressure, using trial and error.

Do not use any more pressure than is necessary to obtain the desired print quality.

Full width media:
Equal pressure on both sides

Push the media towards the center section

Narrow media:
Reduce pressure on the outside edge so that the printhead remains level



Technical Data (Standard model)

Print Technique	Direct Thermal/Thermal Transfer	
Print Resolution	8 dots/mm (203.2 dots/inch)	
Quick-mount Printhead	Yes	
Maximum Print Width	104 mm (4.09 inches)	
Maximum Media Width	114 mm (4.5 inches)	
Smooth Fonts	Yes	
Print Directions	4	
Maximum Internal Media Roll Diameter	152 mm (6 inches)	
Maximum Ribbon Length	~200 metres (656 feet)	
Dimensions (W x D x H)	236 x 350 x 170 mm (9.3 x 13.78 x 6.7 inches)	
Weight (excluding media, ribbon, & options)	4.7 kgs (10.3 pounds)	
Ambient Operating Temperature	+5° C to +40° C (+41° F to +104° F)	
Humidity	20 to 80% non-condensing	
Sound Emission Level	< 60 dB (A)	
Microprocessor	32 bit	
Firmware	Intermec EasyCoder E4 Direct Protocol v2.10	
Label and Ribbon End Sensors	Yes	
AC Input Voltage	110 to 120/220 to 240 VAC, 4/2A, 60/50Hz	Build
PFC Regulation	IEC 61000-3-2	
Maximum Power Consumption	Stand-by 30W;Typical label 70W; Maximum 250W	
Communications Interface Standard	1 x RS-232 Serial and 1 x Centronics Parallel	
Print Speed (tear-off/cut-off)	100 or 150 mm/sec (4 or 6 inches/sec)	
Print Speed (peel-off/roll Ø 152 mm)	100 mm/sec. (4 inches/sec)	Rec.
Print Speed (LTS enabled)	100 mm/sec. (4 inches/sec)	
Bar Code Generators	38	
On-board Flash EPROMs	2 x 512K	
On-Board RAM Memory	512K	
RS-232 Cable	Optional	
Centronics Parallel Cable	Standard	
Real Time Clock (RTC)	Optional	
Label Taken Sensor	Fitted	
Scaleable Fonts	Built-in	
Memory Card Slot	1 PCMCIA 5V Type 3, or 2 PCMCIA 5V Type 1 or 2	
Paper Cutter	Optional	

Technical Data (LinerLess model)

Print Technique	Direct Thermal and LinerLess	
Print Resolution	8 dots/mm (203.2 dots/inch)	
Quick-mount Printhead	Yes	
Maximum Print Width	104 mm (4.09 inches)	
Maximum Media Width	114 mm (4.5 inches)	
Smooth Fonts	Yes	
Print Directions	4	
Maximum Internal Media Roll Diameter	152 mm (6 inches)	
Dimensions (W x D x H)	236 x 350 x 170 mm (9.3 x 13.78 x 6.7 inches)	
Weight (excluding media & options)	4.3 kgs (9.4 pounds)	
Ambient Operating Temperature	+5° C to +40° C (+41° F to +104° F)	
Humidity	20 to 80% non-condensing	
Sound Emission Level	< 60 dB (A)	
Microprocessor	32 bit	
Firmware	Intermec EasyCoder E4 Direct Protocol v2.10	
Label End Sensor	Yes	
AC Input Voltage	110 to 120/220 to 240 VAC, 4/2A, 60/50Hz	Build
PFC Regulation	IEC 61000-3-2	
Maximum Power Consumption	Stand-by 30W;Typical label 70W; Maximum 250W	
Communications Interface Standard	1 x RS-232 Serial and 1 x Centronics Parallel	
Print Speed	100 or 150 mm/sec (4 or 6 inches/sec)	
Bar Code Generators	38	
On-board Flash EPROMs	2 x 512K	
On-Board RAM Memory	512K	
RS-232 Cable	Optional	
Centronics Parallel Cable	Standard	
Real Time Clock (RTC)	Optional	
Label Taken Sensor	Not fitted	
Scaleable Fonts	Built-in	
Memory Card Slot	1 PCMCIA 5V Type 3, or 2 PCMCIA 5V Type 1 or 2	

Media Specifications

Media Roll Size

Diameters:

Width:

Themediamustnotbeattachedtothecoreinsuchaway
thattheprintercannotpulltheendfree.Otherwisethethe
rmal
transferribbonmaybedamaged.

Roll

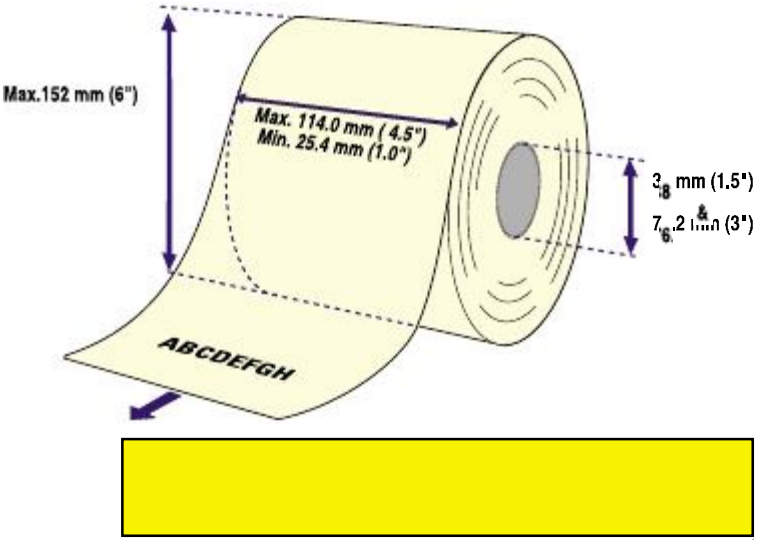
Max.diameter:
Max.width:
Min.width:
Max.webthickness:

Themaximumrecommendedmediathicknessis175µm.
Thickermediamaybeused,butprintqualitywillbereduced
.
Mediastiffnessisalsoimportantandmustbebalancedagai
nst
thicknesstomaintainprintquality.

Mediarolls fi

ttedinsidetheprintershouldbewoundwiththe
printablesidefacingoutwards.

An external media supply must be protected from dust, sand, grit, etc. Any hard particles, even small ones, can damage the printhead.

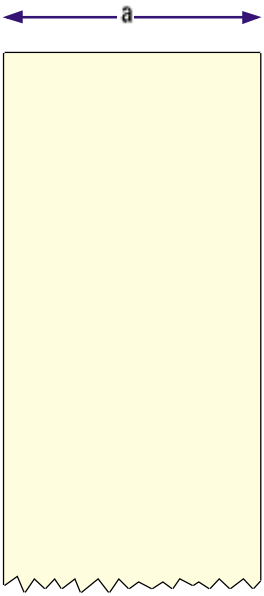


Media

Non-Adhesive Strip

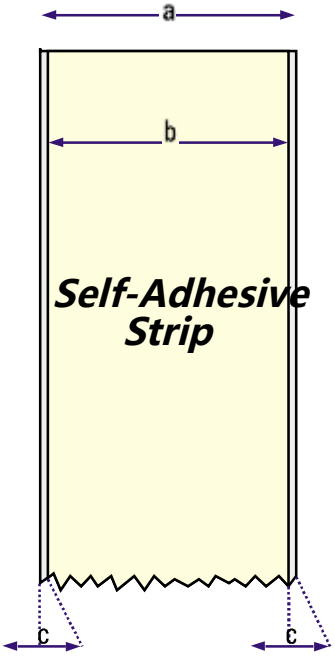
Mediatypesetup:
- Fixlengthstrip
- Varlengthstrip

Non-Adhesive Strip


a

Media, cont.

Self-Adhesive Strip



⇐ b ⇒Liner
Thelinermustnotextendmorethanatotalof1.6mm(0.06 inches)outsidethefacematerialandshouldprotrudeequally on bothsides.

⇐ c ⇒MediaWidth(excludingliner):
Maximum:112.4mm
Minimum:23.8mm

Media, cont.

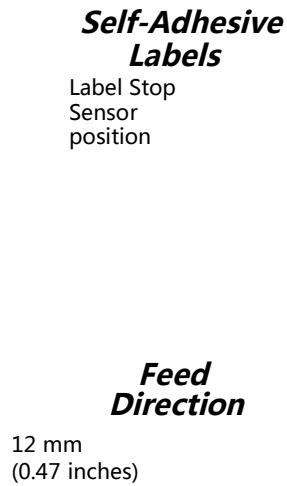
Self-Adhesive Labels

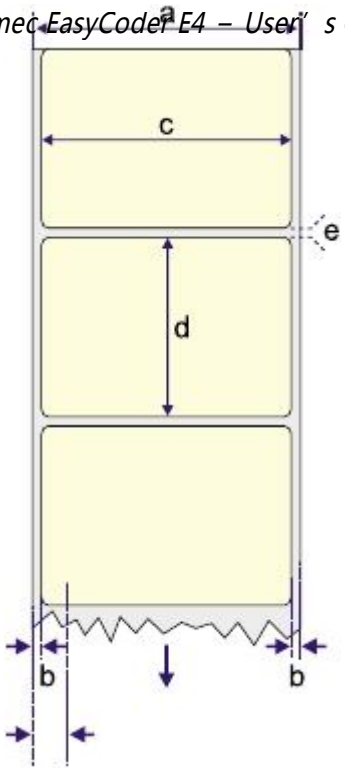
⇐ b ⇒Liner
Thelinermustnotextendmorethanatotalof1.6mm(0.06 inches)outsidethelabelsandshouldprotrudeequallyonboth
side.Recommendedmin.transparency:40%(DIN53147).

⇐ c ⇒LabelWidth(excludingliner):
Maximum:112.4mm
Minimum:23.8mm

⇐ d ⇒LabelLength:
Minimum:

⇐ e ⇒LabelGap:
Maximum:
Recommended:
Minimum:




a
c
e
d
b
b

Media, cont.

Tickets with Gap

⇐ b ⇒CopyLength:
Min. lengthbetweenslots:

⇐ c ⇒DetectionSlitStart:
Thedistancebetweentheinneredgeofthemediaandthestartof
thedetectiongap(excl. cornerradii)mustbe:
Minimum:6mm(0.24inches)
Maximum:9mm(0.35inches)

⇐ c ⇒DetectionSlitEnd:
Thedistancebetweentheinneredgeofthemediaandtheendof
thedetectiongap(excl. cornerradii)mustbe:
Minimum:15mm(0.59inches)

⇐ e ⇒DetectionSlitHeight:
Maximum:
Recommended:

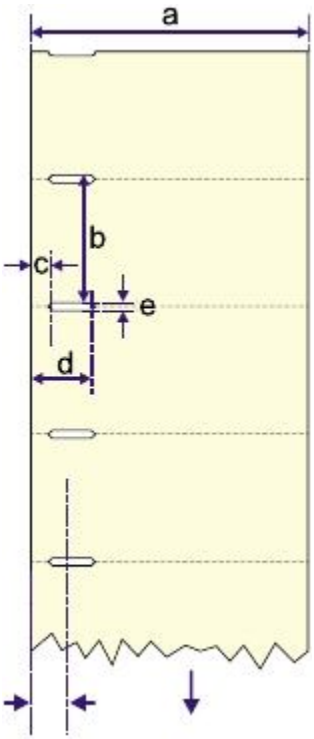
Tickets & Tags

MediaTypeSetup:
• Ticket(wgaps)

Label Stop
Sensor
position

12 mm
(0.47 inches) ***Direction***

53



Media, cont.

Tickets with Black Mark

⇐ b ⇒CopyLength:
Minimum:

⇐ c ⇒BlackMarkOffset:
Thedistancebetweentheinneredgeofthemediaandtheinne
r
edgeoftheblackmarkmustbe:
Maximum:9.5mm(0.37inches)
Minimum:Norestriction

⇐ d ⇒BlackMarkEnd:
Thedistancebetweentheinneredgeofthemediaandtheoute
r
edgeoftheblackmarkmustbe:

Tickets with Black Marks

Common:
Minimum:

Label Stop Sensor position

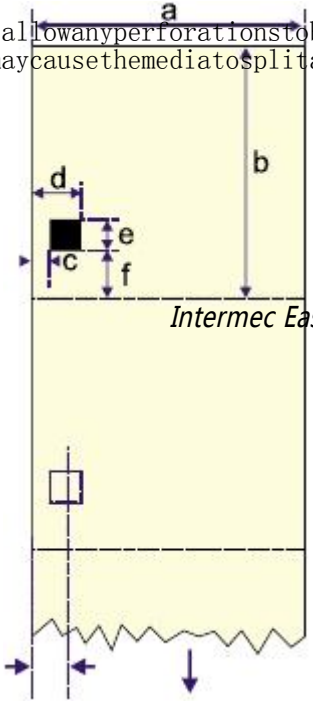
12 mm (0.47 inches) ***Feed Direction***

□ f ⇒BlackMarkY-Position:
Theblackmarkshouldbeasclosetothefrontedgeoftheticket aspossible.Useanegative*stopadjust*valuetocontrolthemedia feed,sothattheticketscanbeproperlytornorcutoff.

Theblackmarkshouldbenon-reflectivecarbonblackona whitishbackground.

Mediatypesetup:
• Ticket(wmark)

Donotallowanyperforationstobreaktheedgeofthemedia,as thismaycausethemediatosplitandjamtheprinter.



Transfer Ribbons

Ribbon Roll Size

Core

Diameter:25.4mm(1inch)

Theprintermustbeabletopulltheendoftheusedribbon easilyfreeofthecore.

Ribbon Roll

Maximumdiameter:60mm(2.36inches)

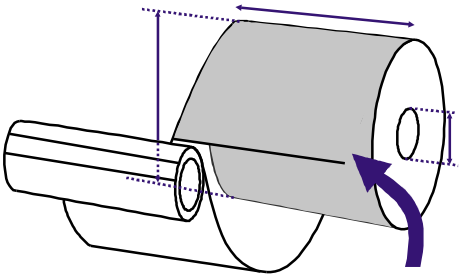
Theinkisonthesideortheribbonthatfacesthemedia.

x. 11

he

60 mm (2.36 inches)

25.4 mm (1 inch)



New Supplies and Paper Type Settings

THERMAL TRANSFER PRINTING (Europe)

Ribbon Name
GP02
HP05
HP07
HR03

THERMAL TRANSFER PRINTING (U.S.A.)

Ribbon name	
TMX 1100/1500	Duratran I
	Duratran VG
	Duratran II
	Duratran II Tag
	Kimdura
	Kimdura Tag
TMX 2500	Duratran II
	Duratran II Tag

GG65
GG65
GJ105

56

New Supplies and Paper Type Settings, cont.

DIRECT THERMAL PRINTING (Europe)

Media Name

Economy
Eco Board
Premium
Top Board
UBI DT 110 +10%
UBI DT 110 +15%
UBI DT 110 +30%

DIRECT THERMAL PRINTING (U.S.A.)

Media Name

Duratherm II
Duratherm Ltg
Duratherm IR
Duratherm II Tag

LINERLESS PRINTING (Europe and U.S.A.)

Media Name	**setting**			
Intermec LinerLess	GS103	see note	Normal	Normal

Note: The new supplies setting GS103 approximately corresponds to the paper type setting UBI DT 110.

Interfaces

Parallel Interface

Pin	Function	Transmit
1	/Strobe	Host
2-9	Data 0-7	Host
10	Ack	Printer
11	Busy	Printer
12	Error	Printer
13	Select	Printer
14	Autofd	Host
15	N/C	
16	Signal	
17	Chassis	
18	Logic high	Printer
19-3	Signal	
31	/Init	Host
32	/Fault	Printer
33-3	N/C	
36	/Selectin	Host

Serial Interface

Computerend:

Printerend:

**/.Max.150mA.Short-circuitprotected.*

Host		Printer			Host	
Sign	DB-	DB	Sign	DB	DB-	Signa
		1	+5V	1		
RX	2	2	TXD	2	3	RXD
TX	3	3	RXD	3	2	TXD
DT	4	4	–	4	20	DTR
GN	5	5	GND	5	7	GND
DS	6	6	RDY	6	6	DSR
RT	7	7	CTS	7	4	RTS
CT	8	8	RTS	8	5	CTS
		9	–	9		

Notes

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www.intermec.com

EasyCoder E4 User’s Guide

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